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From: Wayne Hedberg
To: rnetz@emerytelcom.net
Date: 2/16/2007 4:14:23 PM
Subject: Pasture Pond Expansion Technical Deficiency Review (Task #2644)

Dear Mr. Netz:

Attached is a technical deficiency review for the Pasture Pond Expansion amendment. The signed hard copy will be sent out first thing on Monday morning by US mail. I apologize for the unforeseen delay in providing you with our response. Please contact me, Steve Fluke (project lead), or the specific technical staff reviewers with any questions.

Thank you,

D. Wayne Hedberg

Permit Supervisor

Coal Regulatory Program

Division of Oil, Gas & Mining

(801)538-5286

CC: Angela Nance; Sheila Morrison



State of Utah
Department of
Natural Resources

MICHAEL R. STYLER
Executive Director

Division of
Oil, Gas & Mining

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Division Director

JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

February 16, 2007

Michael J. Blakey, Resident Agent
Sunnyside Cogeneration Associates
P.O. Box 159
Sunnyside, Utah 84539

Subject: Pasture Pond Expansion, Deficiency List, Task ID #2644, Sunnyside Cogeneration Associates, C/007/0035, Outgoing File

Dear: Mr. Blakey:

The Division has reviewed your amendment to the Sunnyside Cogeneration Associates (SCA) Mining and Reclamation Plan (MRP) for the Pasture Pond Expansion submitted on September 13, 2006.

Some technical deficiencies and clarifications remain that must be addressed before the amendment can be determined technically complete and approved. Those deficiencies and clarifications are attached to this letter.

Each deficiency identifies its author by that author's initials in parentheses, so that your staff can directly communicate with that individual should any questions arise relative to the preparation of a response to that particular deficiency. Technical memos prepared by each of the reviewers can be made available upon request.

Please respond to these deficiencies as soon as possible, but by no later than March 15, 2007, so that we may efficiently process your amendment.

Sincerely,

A handwritten signature in cursive script that reads "D. Wayne Hedberg".

D. Wayne Hedberg
Permit Supervisor

an
Attachment
cc: Priscilla Burton, PFO
O:\007035.SRS\FINAL\WG2644\2644_Deflist.doc

Deficiency List
Task No. 2644
Pasture Pond Expansion

The members of the review team include the following individuals:

Steve Fluke [SMF]
Priscilla Burton [PWB]
Wayne Western [WHW]

Soil

R645-301-243, The Permittee should not change the wording on page 900-15. The requirement for testing the regraded mine site and borrow area soils must remain in the MRP, as it is likely that fertilization will be required at this site, based upon previous subsoil soil testing. Testing upon final reclamation is a requirement of the MRP and is currently stated in loose terms on page 900-15, Sec. 9.9. The current wording has been changed, however, to imply that:

- the Division does not ordinarily require testing, and
- that the site may not require fertilization.

These two statements are inaccurate for this site, as the Division will always require amendments and fertilization for the use of nutrient poor subsoils as a topsoil substitute. If there is to be any changes to this wording, the Division recommends that the MRP indicate the extent of sampling (for example 500 ft. centers) and the total number of samples, and the parameters to be analyzed (i.e. pH, EC, SAR, and macronutrients N, P, K). The bonding calculations must include this sampling and analysis cost.

- The requirement for fertilization during interim reclamation with 150 lbs/ac of 16-16-8 has been re-worded on page 900-17 of the MRP, to state that fertilizer will be applied, "if it is determined to be needed. Please specify how the necessity for fertilizer will be determined, by soil testing?" [PWB]

R645-301-553.252, The plan must indicate that the worst case scenario, requiring four foot cover depths is illustrated by Plate 8-4 and the best case scenario is illustrated by Plate 10-6, but the bond posted is for four feet of cover as presented on Plate 8-4. [PWB]

Engineering

R645-301-521, The Permittee must update all maps and text in the MRP to show the changes associated with the pasture pond. Such maps include but are not limited to 5-2, 5-2C, 5-2D, 5-2E, 5-3 and 5-4. In addition the Permittee must also update all sections of the MRP to show the changes. Such sections include but are not limited to 562.100, where the Permittee describes the clear water sediment pond. [WHW]

Hydrology

R645-301-121.100 and -121.200, The Permittee needs to update or remove Appendix 7-3E to reflect that the Clear Water Pond has been removed from the SCA facility. [SMF]

R645-301-121.100 and -121.200, The Permittee needs to remove/replace the existing Appendix 7-3A as part of the amendment to keep the MRP clear and up-to-date. [SMF]

R645-301-121.100, -121.200, and -732.200, The Permittee needs to update Section 732.200 to reflect the changes in the proposed amendment. [SMF]

R645-301-742, The Permittee needs to address the following deficiencies regarding the design of the Pasture Pond. [SMF]

- **-742.221.31**, The information in the amendment does not clearly demonstrate that the Pasture Pond is designed with adequate runoff and sediment storage volume to handle the 10-yr/24-hr precipitation event. Specifically, the stage-storage curve diagram on Plate 7-9 should show spillway and sediment cleanout elevations. Additionally, sediment load and runoff inflow for the 10-yr/24-hr precipitation event should be presented.
- **-742.221.31**, Sediment inflow and storage requirements are not presented in the amendment.
- **-742.221.32**, Detention time and relation to the required UPDES effluent limitations are not discussed in the amendment.
- **-742.221.33**, It is not clear if the pond has been designed to contain or treat the water and sediment for the 10-yr/24-hr storm event because: 1) the sediment volume contribution from the storm event is not presented, 2) the sediment cleanout level is not clear and, therefore, it is not clear whether the pond volume will be adequate to contain the storm event inflow, and 3) if discharge is to occur during the storm event, adequate detention time is not available and sediment concentration at the time of discharge is not presented.
- **-742.221.34**, The primary spillway is fitted with a gate valve to control retention time, but is not demonstrated to be fitted with a non-clogging inlet. The emergency spillway is fitted with an anti-vortex device and trash rack.
- **-742.221.36**, The pond clean-out level and adequate volume needed to contain the design event is not clear.
- **-742.221.37**, There is no assurance that excessive settlement will not occur.
- **-742.221.38**, There is no assurance that the pond will be free of sod, large roots, frozen soil, and acid- or toxic-forming coal-processing waste.
- **-742.221.39**, There is no assurance that the pond will be compacted properly.
- **-742.223**, The 18-inch CMP emergency spillway is not demonstrated to safely discharge the 25-yr/6-hr precipitation event.
- **R645-301-744**, The Permittee needs to describe how the discharge from the Pasture Pond will be controlled to reduce erosion and to minimize disturbance to the hydrologic balance.

R645-301-731.740, The Permittee should update Plate 7-9 to reflect changes requested by the

Division for this review including, but not limited to the stage-storage curve diagram should show spillway and sediment cleanout elevations, and the riser detail should be consistent with other descriptions. [SMF]

R645-301-731.740, The Permittee should update Plate 7-G and remove Plate 7-4 in order to keep the MRP up-to-date and consistent with the proposed amendment. [SMF]

R645-301-121.100 and -121.200, The Permittee needs to update the Table of Contents and organization of Appendices 8-1 and 10-1 such that Appendices 8-1A and 10-1A will replace outdated information. [SMF]

R645-301-121.100 and -121.200, The Permittee needs to update Appendices 8-1 and 10-1 to reflect the removal of the Clear Water Pond. [SMF]

R645-301-742, The Permittee needs to address the Pasture Pond design deficiencies listed for Section 7 in the updated information provided in Appendix 8-1A and 10-1A. [SMF]

Bond

R645-301-830.140, The Permittee must include update reclamation cost estimates to reclaim the site based on the changes to the reclamation plan. Specifically, the Permittee must update the bond calculations and the reclamation plan as needed to show the changes to the bond and reclamation plan. [WHW]